

Pond Management

Product Use Guide



Introduction

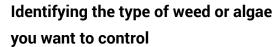
This SePRO aquatic guide provides the information needed to balance and restore ponds and lakefronts. Managing aquatic weeds, algae and water quality is very simple with a little know-how and the right portfolio of products.

For more than 30 years, SePRO has been dedicated to providing expertise and environmentally responsible solutions for aquatic plant, algae, and water quality management.

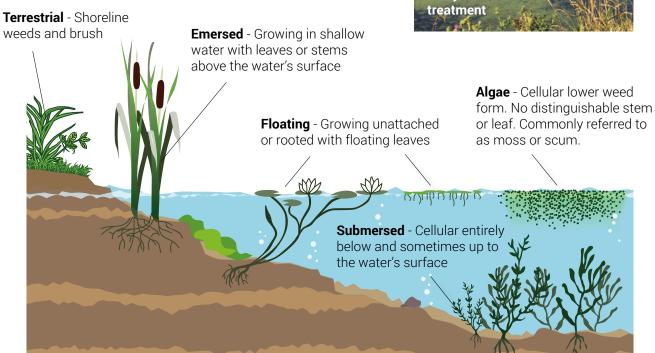


Pond Care 101

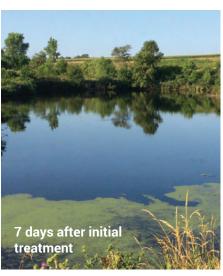
- The best results are attained when an integrated approach is taken
- Keep fertilizer away from ponds to prevent runoff
- Use fertilizer with low or no phosphorus to prevent feeding algae
- Leave a buffer of natural plant species around ponds
- Limit geese population
- Use dyes to limit light penetration



The most common aquatic weeds fall into the categories listed below.



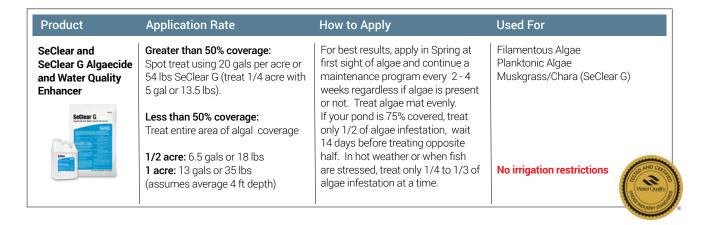




SeClear & SeClear G Algaecide and Water Quality Enhancer™

SeClear is the first algaecide and water quality enhancer in one designed to replace routine algaecide programs. SeClear provides effective control of a broad range of algae species while reducing in-water phosphorus levels with each application. The result is longer lasting control, improved water quality and aesthetics with reduced maintenance required over time. Water treated with SeClear may be used for drinking, swimming, fishing, watering livestock and irrigation immediately following treatment.

SeClear G – This new granular formulation can be broadcast as a granule or dissolved and sprayed, has less bulk and can be directly applied to bottom algae including Muskgrass/Chara.



Captain® XTR Algaecide

Captain XTR is the best available technology for the control of tough-to-control algal species. This formulation is optimized to increase penetration (INFUSION) of copper into algae cells especially challenging colonial, mat-forming and mucilaginous species such as *Aphanizomenon, Hydrodictyon, Oscillatoria, Lyngbya, and Microcystis*. Water treated with Captain XTR may be used for swimming, fishing, watering livestock, and irrigation during and after application (including directly into irrigation).

Product	Application Rate	How to Apply	Used For
Captain XTR	Greater than 50% coverage: Spot treat using 10 gals per acre (treat 1/4 acre with 2.5 gals) Less than 50% coverage: Treat entire area of algal coverage 1/2 acre: 3 gals 1 acre: 6 gals (assumes average 4 ft depth)	For best results, apply in Spring at first sight of algae and continue a maintenance program so algae never takes over the entire pond. Treat algae mat evenly. If your pond is 75% covered, treat only 1/2 of algae infestation, wait 10 to 14 days before treating opposite half. In hot weather or when fish are stressed, treat only 1/4 to 1/3 of algae infestation at a time.	Filamentous Algae Planktonic Algae Muskgrass/Chara No irrigation restrictions

Phycomycin® Algaecide/Cyanobacteriocide

Phycomycin is an effective and environmentally compatible algaecide that can be used as both a selective and broad-spectrum algae control solution. Phycomycin is Organic Materials Reviews Institute (OMRI) certified for organic use and is ANSI/NSF Standard 60 certified for use in drinking water supplies at maximum labeled rates.

Product	Application Rate	How to Apply	Used For
Phycomycin SCP	Greater than 50% coverage: 1/2 acre: 50 lbs per acre-ft. 1 acre: 100 lbs per acre-ft. Less than 50% coverage: 3 - 75 lbs per acre-ft.	Broadcast with a mechanical spreader or gloved hand directly onto water surface. Liquid application, dissolving product and spraying over the surface or apply subsurface via piping system, hoses or spray.	Filamentous Algae Planktonic Algae
The second secon		Drip irrigation Sprinklers	No irrigation restrictions

EutroSORB® Water Quality Technologies

EutroSORB F Filters — A novel technology specifically designed for intercepting soluable reactive phosphorus (SRP) from moving water. EutroSORB provides water resource managers an efficient and economical solution to reduce phosphorus inputs, slow down or stop the eutrophication process, and restore water quality.

EutroSORB WC — Simple to use next-generation phosphorus binding technology that can be used to remove excess phosphorus rapidly and permanently from surface water resources. This easy to use formulation works quickly and can be used in lakes, ponds, stream and ditches with no irrigation restrictions.

Product	Application Rate	How to Apply	Used For	
EutroSORB F EutroSORB Factor of the late	Each EutroSORB filter can bind up to a 1/4 lb. of phosphorus or more.	Place the filter(s) in moving water. Position the filters to promote water to pass through the filters as much as possible. Leave the filter(s) in place for 8 weeks. Rotate the filters periodically to optimize results.	To rapidly remove phosphorus from moving water. EutroSORB reactive filter media has a high affinity and capacity for phosphorus and will continue to bind phosphorus until all binding sites have been exhausted. No irrigation restrictions	
EutroSORB WC	Each 1.25 gallon of EutroSORB WC will permanently inactivate 1 pound of phosphorus from the water column.	For best results, distribute uniformly over the surface of the water body or the area targeted for phosphorus inactivation.	To quickly and permanently remove phosphorus from the water column.	
brooks vo		EutroSORB WC can be applied via surface spray application, sub- surface injections, or poured into areas where good mixing occurs such as intakes or fill pipes.	No irrigation restrictions	

Sonar® Aquatic Herbicide

Sonar provides long-term systemic control of undesirable floating, emersed and submersed weeds bringing balance back to aquatic ecosystems. Sonar can be selective or broad-spectrum pending species, rate and treatment timing and can take 30 -120 days for full control. Treating with Sonar won't restrict fishing, swimming, drinking or recreation and can be used in freshwater ponds, lakes, reservoirs, rivers, and canals. Sonar is the best aquatic herbicide available for lasting results.

- Sonar Genesis® (liquid) Sonar Genesis is a unique liquid formulation for fast-acting, long-lasting control of aquatic weeds.
- SonarOne® (granule) SonarOne is a unique controlled-release formulation that results in a quick initial target dose of Sonar followed by a sustained release. It is excellent for water bodies with both low and high turnover.
- Sonar Infinity™ (WDG) The easist Sonar formulation to use. Highest active ingredient load equals less weight. Excellent at extending your control following a contact herbicide treatment.

Product	Application Rate	How to Apply	Used For	
Sonar Genesis	1 gal per acre For Watermeal: Apply 1.3 gals per acre followed by 0.6 gals 1 month later. Treat early in Spring in low flowing ponds for best results. (assumes average 4 ft depth)	For best results, apply early in Spring when plants are actively growing. Sonar Genesis can be directly applied to water and will mix in 24 - 48 hours. For faster uptake by floating plants like duckweed and floating leaved plants like lilies, mix 50/50 with water and spray directly onto leaf surfaces.	Bladderwort Coontail Duckweed Elodea Eurasian Watermilfoil Hydrilla Lilypad Naiads Pondweed Spatterdock Watermeal	
SonarOne	10 - 20 lbs per acre (4 - 6 ft average depth)	Apply the pellets directly to the weed bed. For best results, apply in early Spring just before plants start to grow.	Bladderwort Coontail Duckweed Elodea Eurasian Watermilfoil Hydrilla Naiads Pondweed Spatterdock	
Sonar Infinity	0.5 - 1 pdu/acre ft. every 2 - 4 weeks	Mix with water and apply.	Bladderwort Coontail Duckweed Elodea Eurasian Watermilfoil Hydrilla Naiads Pondweed Spatterdock	

Sonar is also available in other formulations: Sonar RTU, Sonar A.S. and Sonar Q. Contact your SePRO Technical Specialist for more information or a custom prescription.

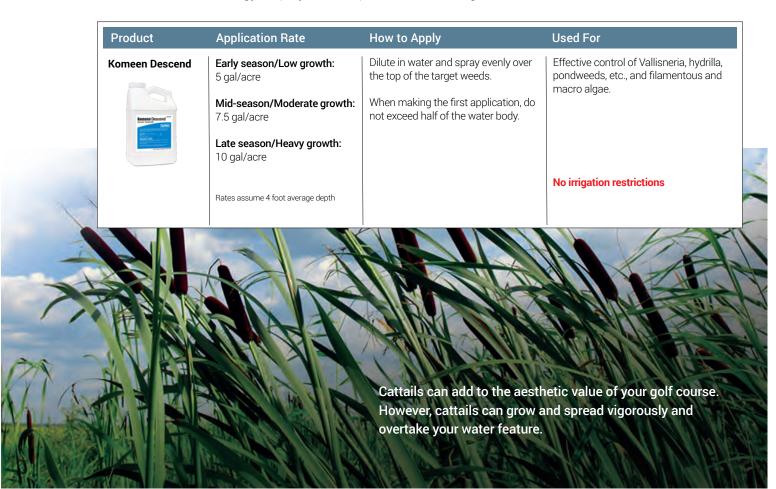
Clearcast® Aquatic Herbicide

Clearcast effectively controls floating, emergent and shoreline weed species and is the best product for controlling cattails and phragmites. Clearcast's selectivity makes it ideal for aquatic areas used for fishing and other recreational activities. Minimal irrigation restrictions allow Clearcast to be applied in a large variety of aquatic environments, including golf course ponds.

Product	Application Rate	How to Apply	Used For	
Clearcast	Emersed: (above water plants) 1/2 acre: 32 fl oz Clearcast and 16 fl oz MSO (methylated seed oil surfactant) with 20 gals of water 1 acre: 64 fl oz (2 qt) Clearcast and 32 fl oz MSO with 40 gals of water	Emersed: (use with MSO) Spray to completely wet leaf and stem surfaces. Easy to Control: Use 32 fl oz/acre rate Hard to Control: Use 64 fl oz/acre rate	Easy to Control Cattail Creeping Water Primrose Dollarweed Frog's bit Japanese Stiltgrass Pondweed Purple Loosestrife Water Hyacinth Water Stargrass Watershield	Hard to Control Alligatorweed Cattails/Bull Rush Common Salvinia Pennywort Phragmites Common reeds Water Lily

Komeen® Descend Aquatic Herbicide

Komeen Descend is a groundbreaking aquatic herbicide, specifically designed to tackle a wide-range of invasive and nuisance aquatic weeds, ensuring the ponds around your course look their best. With MicroCRYSTAL Technology, it sprays like a liquid, but acts like a granule.



Renovate® Aquatic Herbicide

Renovate is a systemic aquatic herbicide labeled for control of submersed, emersed, and floating plants in and around aquatic sites. The herbicidal power of Renovate impacts most dicot (broadleaf) plants, while having little to no impact on most monocots (grassy-type species), providing an excellent tool for aquatic ecosystem restoration programs. Target species are typically controlled in 2 - 6 weeks and results are long-lasting.

- Renovate 3 (liquid) Renovate 3 is highly effective in selectively targeting purple loosestrife, water hyacinth, water primrose and other susceptible emerged or floating plant species using a foliar/surface application technique. A sub-surface application targeting submerged weeds, such as Eurasian watermilfoil, can be effective when applying to large target areas and/or low turnover ponds.
- Renovate OTF (granule) Renovate OTF is the product of choice to improve efficacy and cost when conducting spot applications, partial lake applications (shoreline) and sites with a high dilution potential.

Product	Application Rate	How to Apply	Used For
Renovate 3	Emersed: (above water plants) 1/2 acre: 32 fl oz Renovate and 16 fl oz MSO (methylated seed oil surfactant) with 20 gals of water 1 acre: 64 fl oz (2 qts) Renovate and 32 fl oz MSO with 40 gals of water Submersed: (underwater plants) 1/2 acre: 2.5 gals Renovate 1 acre: 5 gals Renovate (assumes average 4 ft depth)	Emersed: (use with non-ionic surfactant) Spray to completely wet leaf and stem surfaces. Submersed: Apply evenly over weed bed.	Emersed: Alligatorweed Posion Oak Creeping Water Primrose Lilypad Spatterdock Phragmites Water hyacinth Pickerelweed Watershield Poison Ivy Willow Selective brush control on banks and shorelines Submersed: Eurasian Watermilfoil Milfoil species Parrotfeather No irrigation restrictions for turf
Renovate OTF Renovate OTF	1/2 acre: 80 lbs Renovate OTF 1 acre: 160 lbs Renovate OTF assumes average 4 ft. depth	Apply evenly over weed bed.	Alligatorweed Parrotfeather Bladderwort Pennywort Creeping Water Primrose Smartweed Lotus Water Lily Milfoil species Watershield No irrigation restrictions for turf

Contact your SePRO Technical Specialist for more information or a custom prescription.

Water lilies (floating) are some of the world's most beautiful and recognizable plants. Left unchecked, water lilies often form dense colonies blocking out sunlight and oxygen from the water.

Harpoon® G Aquatic Herbicide

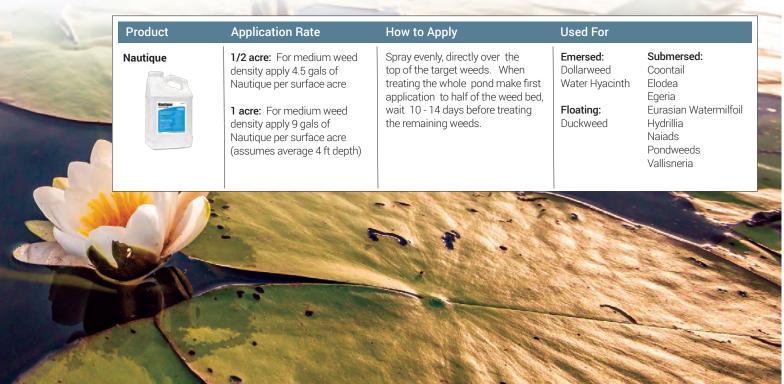
Harpoon Granular may be applied to slow moving or quiescent bodes of water, including fish hatcheries, potable water reservoirs, golf courses, ornamental, fish and fire ponds, and freshwater lakes. Areas treated with Harpoon Granular Aquatic Herbicide may be used for fishing and swimming immediately after treatment. Targeted plants are treated by plant height in water.

Susceptible submersed aquatic weeds such as Hydrilla, Egeria (*Brazilian Elodea*), Naiads, Coontail, Elodea, Water lettuce, Water Hyacinth, Giant Salvinia, and other species having a sensitivity to copper absorption. In waters with low alkalinity (hardness), this product may also control Eurasian Watermilfoil and Horned, Sago, American, Curly-leaf, and Floating-leaf Pondweeds.

Product	Application Rate	How to Apply	Used For		
Harpoon G Rarpoon Feedback Control of the Control o	Very shallow water < 1ft depth: 2.4 oz per 1000ft² per inch of water Shallow water. 2 lbs per 1000ft² per foot of plant growth Large area treatment: 40 - 80 lbs per surface acre for every foot of plant height (1 - 2 bags)	Distribute product evenly over the water surface directly over the targeted vegetation according to plant height. A dry fertilizer spreader or blower may be used to ensure even distribution. For small spot treatments, apply uniformly using spreader or hand scoop.	Hydrilla Egeria (Brazilian Elodea) Naiads Coontail This product may also con Horned, Sago, American, C Pondweeds No irrigation restrice		

Nautique® Aquatic Herbicide

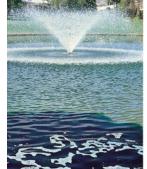
Nautique is a fast-acting, economical herbicide that provides localized control of nuisance and exotic plants with no use or irrigation restrictions. This concentrated, copper-based herbicide works on contact for spot and local treatment of tough weeds like hydrilla, egeria, and Southern naiad. Water treated with Nautique can be used immediately after treatment for drinking, irrigation, fishing, swimming, and recreation.



Aguashade® Aguatic Plant Growth Control by Dyes

The Aquashade products provides powerful control, up to 84% biomass reduction of tough to control invasives plants like hydrilla. Easily pour directly into water along the shoreline. Dispersion can be accelerated by applying several areas around the pond or lake, with fountains or aerators at the treatment site. Both products provide long lasting results with only periodic maintenance doses. Aquashade has limited restrictions, just allow the product to fully disperse and the treated water can be used for swimming, irrigation and livestock water consumption.

- Aquashade® Aquatic Plant Growth Control More than a colorant. Aquashade Aquatic Plant Growth Control is a precise EPA registered blend of dyes proven to control underwater aquatic plants by limiting sunlight available for photosynthesis.
- Aquashade® PLUS You already love our EPA registered Aquashade Aquatic Plant Growth Control, get ready to try our 2.4 times more concentrated formula. Also EPA registered, so you know this blend of dyes has been





Application of Aquashade

Hours after application

thoroughly tested and is proven to control underwater aquatic plants and algae.

Product	Application Rate	How to Apply	Used For	
Aquashade PLUS	Can be applied 13 oz. to 32 oz. per acre-ft. A new 50 oz. size is equivalent to 1 gallon of Aquashade Aquatic Plant Growth Control, the ideal choice for saving storage and shelf space. Available in larger applicator sizes — why haul water when you don't have to!	Pour directly into water. Dispersion can be accelerated by applying in several areas around the treatment site, or allowing fountains/aerators to run. For best results, apply early in the season, prior to plant germination.		
Aquashade	Can be applied 32 oz. to 80 oz. per acre-ft. 1 gal. per 4 acre-ft (at 0.8 ppm)	Pour directly into water. Dispersion can be accelerated by applying in several areas around the treatment site, or allowing fountains/aerators to run. For best results, apply early in the season, prior to plant germination.	Pre-emergent before growing season Submersed plants, subsurface and suspended algae Best effectiveness when water is 2 feet or deeper. Treated water can be used for swimming, irrigation and water for animal consumption.	

Aquashade formulations are registered pesticides. Contact your SePRO Technical Specialist for more information or a custom prescription.

SePRO Colorants Selections

SePRO offers a variety of colorants in blue and black options, concentrations and liquid and granule formats. These water-soluble blend of environmentally friendly dyes that dissolve quickly and impart natural color when applied to your pond, lake or water feature. Products are non-toxic to turfgrass, birds, mammals, reptiles, fish and other aquatic species.

- Aquashadow® Black liquid This product is a water-soluble dye designed for use in lakes, ponds and water features with limited outflow. This product beautifies murky, cloudy or off-colored water with a pleasing, reflective dark tint.
- Aquashadow® WSP Lake and Pond Colorants Concentrated dye formulations packaged in convenient no-mess pouches. The water-soluble pouches dissolves and colorant disperses throughout pond. Two offerings, a blue WSP and a black blend WSP, can be used to beautify off-colored or murky water. Just toss the pouch in your pond!
- Blue Springs® Lake and Pond Colorant Beautifies water in lakes, ponds, and decorative water features. The concentrated product tints the water a pleasing blue and disperses quickly. The treated water may be used for swimming, fishing, and irrigation.

SePRO Bacteria Selections

SePRO offers liquid, powder and pelleted bacteria products. Each product is a blend of beneficial bacteria designed to consume organic matter, improve water clarity and reduce odors in lakes and ponds. Creates a balanced pond.

- Bacti-Klear® Aquatic Microbial Blend A blend of beneficial bacteria designed to consume suspended organic matter, improve water clarity and reduce odors in lakes and ponds. Creates a balanced pond.
- Bacti-Klear® Pellets Aquatic Microbial Blend A blend of beneficial pelletized bacteria designed to consume organic matter on pond bottom. The beneficial bacteria produces enzymes to improve water clarity, reduce odors and reduce muck in lakes and ponds. Creates a balanced pond.

Revive® Biological Water Quality Enhancer — A balanced blend of bacteria, and bacterial enzymes and nutrients that binds available nitrogen and phosphorous in a water body. Improves water clarity and reducing organic sediment buildup and odor.

Application and Use Chart >>

Colorants are water-soluble blends of environmentally friendly concentrated dyes that impart a natural color when applied to your pond, lake, or water feature.

Product		Application Rate	Tint to Water	How to Apply	Used For
	uashadow ck Colorant	Smaller features: 1oz. per 10,000 gallons 32 oz to 64 oz per 4 acre-ft. No dilution needed.	Black	Measure and pour directly into water. Allow product to disperse. Retreat as necessary.	Aesthetics. Beautifies murky, cloudy off-colored water.
	uashadow e WSP	1 WSP per acre-ft. 6 WSPs = 6 acre-ft. per pail No dilution needed.	Blue	Toss WSP into water, if more WSPs are required, toss in around the water feature.	Aesthetics. Pond dye for fishing, swimming, and irrigation ponds and other water features.
	uashadow ck WSP	1 WSP per acre-ft. 6 WSPs = 6 acre-ft. per pail No dilution needed.	Black	Toss WSP into water, if more WSPs are required, toss in around the water feature.	Aesthetics. Pond dye for fishing, swimming, and irrigation ponds and other water features.
	e Springs orant	32 oz. per acre-ft.	Blue	Pour from the container near the shoreline into the water. Allow to disperse. Add more product to maintain desired color.	Aesthetics. Beautifies murky, cloudy or off-colored water with a pleasing natural blue tint.
Aqu	cti-Klear uatic Microbial nd Liquid	Initial dose: 3 gal/ acre-ft. Maintenance dose: 1.5 gal/acre-ft. Dilution: 9:1	Product is gold, dark brown, but no tint to water	Dilute and spray over surface.	To help clarify water and reduce odors by breaking down muck and suspended organic matter.
Aqu	cti-Klear uatic Microbial nd Pellets	Initial dose: 20 lb/ surface acre Maintenance dose: 10 lb/surface acre	None	Sprinkle or apply product with scoop or spreader.	Reduce muck and odors with beneficial bacteria
Wat	rive Biological ter Quality nancer	Initial dose: 3 lbs or 6 packets/acre-ft. Additional doses: 1 lb or 2 packets/acre-ft. Re-treatment time: 2 week intervals. No dilution needed.	None	Initial dose: 3 lbs or 6 packets/acre-ft. Additional doses: 1 lb or 2 packets/acre-ft Re-treatment time: 2 week intervals. No dilution needed.	Balanced blend of bacteria, enzymes and nutrients to utilize nitrogen and phosphorus in a pond to improve water clarity, reduce odors and organic sediment.

Problem & Solution Quick Reference Guide

Use the guide below as a quick reference in identifying which SePRO pond care product will be effective against your specific weed, algae and water quality problem.

Submersed Weeds	Sonar One	Sonar Genesis	Renovate 3 & OTF	Clearcast	Komeen Descend	Captain XTR	SeClear & SeClear G	Nautique	Aquashade	Aquasha PLUS
Bladderwort										•
Coontail										
Elodea										
Eurasian watermilfoil										
Hydrilla										
Most Pondweeds										
Naiads										
Parrotfeather										
/allisneria										
Variable Leaf Milfoil										
Floating Weeds										
Duckweed								•		
Vatermeal										
Water Hyacinth										
Emersed Weeds										
Alligatorweed										
American Lotus										
Cattail										
Creeping Water Primrose										
Dollarweed										
Most Tree Species										
Phragmites (common reed)										
Poison Oak/Posion Ivy										
Purple Loosestrife										
Shoreline Grasses/Brush										
Smartweeds										
Spatterdock/Nuphur										
Nater Lily										
Vatershield										
Villow										
Algae										
Filamentous Algae										•
Muskgrass/Chara										
Planktonic Algae										

depth of 2 feet or deeper

Weed Identification

Use the guide below as a quick reference in identifying which SePRO pond care product will be effective against your specific weed and algae problem.



Alligatorweed Alternanthera philoxeroides



Duckweed Lemna minor





Azolla Azola caroliniana



Elodea Elodea canadensis



Bladderwort Utricularia spp.

S



Eurasian Watermilfoil Myriophyllum spicatum







Cattails Typha latifolia



Hydrilla Hydrilla verticillata





Coontail Ceratophyllum demersum



Phargmites (common reed) Phargmites australis



c



Creeping Water Primrose Ludwigia peploides



Naiads Najas guadalupensis







Parrotfeather Myriophyllum aquaticum





Water Lily Nymphea odorata









Pickerel Weed Pontaderia cordata





Watermeal Wolffia spp.





Sago Pondweed Stuckenia pectinata



Watershield Brasenia schreberi





Pondweed Potamogeton nodosus



Curly Leaf Pondweed Potamogeton crispus





Tapegrass Vallisneria americana



Algae Identification



Filamentous Algae





Water Chestnut Trapa natans L.





Planktonic Algae





Water Hyacinth Eichhornia crassipes



Muskgrass/Chara





Product Icon Legend



Sonar

Aquatic



R



Renovate OTF Aquatic

Herbicide

(Granular)



Aquatic

Herbicide

Clearcast



Herbicide

Komeen Descend Aquatic



Captain XTR Algaecide



SeClear & SeClear G Algaecide and Water Quality

Enhancer



Nautique Aquatic Herbicide



Phycomycin Algaecide

(Granular)



Aquashade & Aquashade Plus Plant Growth Control Dye

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